60001201

Mining District File Summary Sheet

DISTRICT	Rosebud
DIST_NO	4010
COUNTY If different from written on document	Pershing
TITLE If not obvious	Rosebud Drill Hole File – Hole No. D-300-98
AUTHOR	S. King; K. Allen; Whitney
DATE OF DOC(S)	1998
MULTI_DIST Y / (N?) Additional Dist_Nos:	
QUAD_NAME	Sulphur 7.5'
P_M_C_NAME (mine, claim & company names)	Rosebud Mine; Rosebud Project; Rosebud Mining Co. LLC Hecla Mining Co.
COMMODITY If not obvious	gold; silver
NOTES	Drill log; geology; assay; photographs; total depth 300' receipt; handwritten notes; downhole camera images 38p. 3 down hole camera images

Keep docs at about 250 pages if no oversized maps attached
(for every 1 oversized page (>11x17) with text reduce
the amount of pages by ~25)

SS: DD 5/14/08
Initials Date
DB: mah
Initials Date
SCANNED: NB
Initials Date

Revised: 1/22/08

D-300-98

60001201 4010

Hecla MINING COMPANY

- quartz, chalcedony, silicification
- faults, fractures
- FeOx
- sulfide
- calcite, carbonate
- argillization, white clays
- propylitization
- potassic alteration
- chlorite, chloritic clays

Ba SO4

60001201

ROSEBUD PROJECT
DIAMOND DRILL LOG

HOLE NUMBER	D-300-98	LOCATION	Stope 50 Footwall 1550 Section	REMARKS	
PAGE 1 OF 5		NORTHING		hole completed 8/30/98	
DATE	10-19-98	EASTING			
LOGGED BY	Whitney	ELEVATION			
SCALE	1" = 10'	AZIMUTH	125		
TOTAL DEPTH	300'	INCLINATION	47		

TH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
0-71.0		PLANAR LAMINAR 0-15 gry-brn weakly vesicular flow. wkly developed foliation 6-7 vesicular 9-15 vesk. frag in frmt. 15-30 gry fg, vesicular flow w/ well develop. platy foliation 75° to CA, vesicles ≤2mm, pervasive, but form trains 30-41 gry fg vesicular flow, gently as above. foliation partings more closely spaced, vesicles to 3mm & trains more well developed. 41-65 gry fg vesicular flow as 15-30.	10 20 30 40 50	75 30 75 30 30 75 30 15 80 30 80 80 80 80	0-8 flow foliation 75° to CA. 8-19.5 matrix-supported compacted bxd zone. angular clasts in si-flooded matrix. several possible rotated blocks. abrupt bkt. fxt folds 19.5-65 flow foliation partings ~80° to CA sparse fxs 10°, 30°, 40° to CA	0-71 wk propyl. alt'n along foliation part.-s, selvage to 3 mm. 0-8 few qtz-cly-pyr-marcasite vlts to 1/4". 30°, 40, 70° to CA 8-17.5 numerous open vlts overprinting si-flooded bxa. qtz-cly-marcasite ± chlor. 30°, 70°, 10° to CA. also irregular connections. 22 1/2" qtz-cly-chlor-pyr-marcas vlt ≈20° to CA 27.5-29 4" vlt zone 15° to CA. qtz-cly-pyr-marcas. pyr crusted on marcas. 32.2-37 pyr/marcas replacement along/along partings qtz-cly-marc crusted vlts 45-55 vstr chlor crusts on fxs.

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	Ag2
0	5.0					
5.0	8.0					
8.0	9.0					
9.0	13.0					
13.0	15.0					
15.0	17.5					
17.5	19.5					
19.5	23.0					
23.0	27.5					
27.5	29.0					
29.0	32.2					
32.2	36.5					
36.5	38.5					
38.5	41.5					
41.5	45.0					
45.0	50.0					

HOLE NUMBER D-300-98 PAGE 2 OF 5

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
0-71.0		PLANAR LAMINAR 41-65 gry fg vesicular flow, contd. 56-58 "wormy" texture crosses platy foliation, roughly sub// to CA. 65-71 gry fg vesic. flow. platy foliation absent. "wormy" texture sub// to CA. sphero olitic (?) development in trans // to text. (or poss. filled vesicles	60 70		45-54 numerous fxs 10°, 30°, 75° to CA 54-65 sev'l fxs 30° to CA -65 continue partings to CA	-55 continue str chlor crusts on fxs. 55 - 2" qtz-chl-marcas. v/n w/ overprint by prop. 55-65.5 spotty propyl along partings & fxs. sparse ¼" qtz-chl-marc. vnlts 30° to CA.
71.0-89.0 FINE GRAINED MASSIVE		gry nonvesicular flow. ±aphanitic groundmass w/ corroded plag(?) phenos (5%)			71-89 fxs in FGM sparse 10°, 30°, 60° to CA. rolling, irregular surfaces.	65.5-72 devit & pervasive wk propyl. numerous hairline s/chlor vnlts. few qtz-chl-marcas-pyr vnlts to ½" ~30° to CA. 3-5% vfg dk dissem s-. 75 - ½" qtz-pyr vnlt 30° to CA 79-89 wk blch over wk-mod propl. 1% vfg dissem dark s-
89.0-122.5		VITROPHYRE 89-96 transitional zone. quench/shatter/internal autobxa (?) clasts gen. subangular. some have perlitic oval/radial shatter patterns. (some retained FGM pheno text.) 96-122.5 more massive crackled/shattered text. Local perlitic texture	90 100 110 120		89-99 fxs in vitro sparse; 10°, 50° to CA. 99-10 fx more common 10°, 50° to CA & pick up 30°	89-122.5 wk-mod pervasive propl w/ str chlor films on fxs. several s/chlor/qtz vnlts to ⅛" @ 10° to CA. 115-122.5 sparse ⅛" qtz-marcas vnlts ~10° to CA

ANALYTICAL DATA					
FROM	TO	W	Au	Ag	Au2
50.0	52.0				
52.0	54.7				
54.7	55.8				
55.8	58.6				
58.6	61.0				
61.0	63.2				
63.2	66.5				
66.5	69.0				
69.0	71.0				
71.0	73.5				
73.5	76.0				
76.0	79.0				
79.0	83.0				
83.0	86.2				
86.2	89.0				
89.0	91.0				
91.0	94.0				
94.0	99.0				
99.0	104.0				
104.0	109.0				
109.0	114.0				
114.0	119.0				
119.0	122.5				

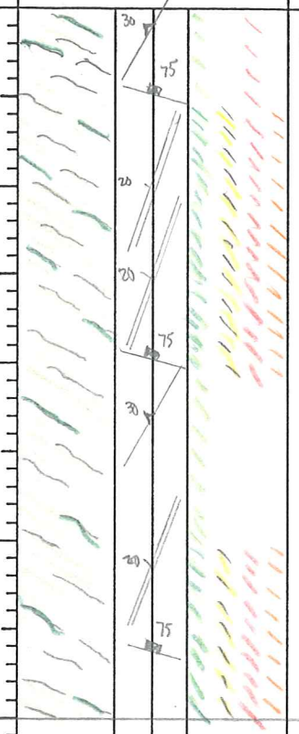
HOLE NUMBER D-300-98 PAGE 3 OF 5

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2
89.0-122.5		VITROPHYRE					119.0	122.5				
122.5-159.0		FINE-GRAINED MASSIVE				122.5-144 wk pervasive propy.	122.5	126.0				
		122.5-129.0 transition zone. wk remnant vitro crackle text. fades to shatter bxd in extremely fine grained flow. local evidence of movement.				122.5-151 sparse qtz-chl-py-S vnlts 10°-20° to CA. sulfide are clotty	126.0	129.0				
		129.0-144.0 mosaic shatter bxd. little to no movement zones alternate w/ high matrix % zones w/ subang/subrnd clasts	120				129.0	134.0				
		R&M Generally wkly propyllitic & v fine-grained. No phenos. No flow texture					134.0	139.0				
			140				139.0	144.0				
		144.0-151.5 sparse, isolated perlitic clasts.				144-159 mod pervasive propy!	144.0	149.0				
		151.5-156.0 perlitic fracturing w/ chlorite matrix	150				149.0	153.5				
		156.0-159.0 more typical massive, unshatted texture				153.5-155.5 qtz-musc-chl stkwk replace of perlite. str chlor along fxs.	153.5	155.5				
159.0-242.7		PLANAR LAMINAR	160		159-165 v closely spaced partings ~15° to CA	159-163 v.wk propy. chlor on partings	155.5	159.0				
		159.0-173.0 gry fine-grained flow: nonvesicular. well developed flow foliation partings				163-167 irregular qtz-chl-musc vnlts to 2". ~20° to CA	159.0	163.0				
					165- partings become more widely spaced	167-173 ± regular hairline qtz-S vnlts ~20° to CA	163.0	167.0				
			170				167.0	169.0				
		173-186.5 gry f.g. flow as above w/ vesicular or spherulitic texture				173-181 common qtz-chl-musc. vnlts 1/16-1/4" ~20° to CA w/minor dark S flooding. ? related to	169.0	173.0				
							173.0	176.0				
			180			181-185 qtz-S-chl stkwk vnlts. poss root to bxd.	176.0	179.0				
							179.0	181.0				
							181.0	184.0				
		186.5-190 bxd. matrix support. angular to subang clasts	190			186.5-190 qtz-S-chl matrix bxd appears hydrothermal	184.0	186.5				
							186.5	190.0				

HOLE NUMBER D-300-98 PAGE 4 OF 5

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2
159.0-242.7		PLANAR LAMINAR 190.0-196.0 typical partings 196.0-201.0 foliated texture minus partings. Mineral alignment; "tuffaceous" appearance. No shards survive alteration. 201.0-206.0 more massive - foliation weak. 206.0- return of platy foliation but retain tuffaceous texture. lithic clasts to 5mm becoming prominent 220.0-235 loss of platy foliation but tuffaceous foliation remains. lithics sparse. 235-239.5 abundant 1-2mm vesicles. gently little to no orientation 239.5-etc bxd vesicular clasts in ash matrix	200 210 220 230 240		190-196 parting continue @ 15° to CA 196- foliation continues @ 65° to CA 215 foliation dip gradually changes to 30° to CA 242.7 contact 55° to CA sharp	190-193 numerous q-s- crackle vnlts & sparse bxa vnlts 196-204.0 common hairline q-s-chlor vnlts ~20° to CA 204.0 hairline q-s-chlor vnlts continue, but sparse 209.0 start wk to mod pervasive propyl. 213.5-216 bands of vfg py // to parting & 220.5-229.0 wk to mod ± argillization. q-s- vnlts common. 230-233 py-ba-ca-marcas vnlt sub // to CA 238-253 common py-pyr-marc ± cly vnlts ~20° to CA. also rare replacement of bxd matrix by vfg dark s-	190.0 193.0 196.0 199.0 204.0 209.0 214.0 219.0 220.5 223.5 226.0 229.0 233.8 238.5 242.7	193.0 196.0 199.0 204.0 209.0 214.0 219.0 220.5 223.5 226.0 229.0 233.8 238.5 242.7 245.0				
242.7-258.5		FINE GRAINED MASSIVE variable texture: FGM, no phenos to 245.5, then 0.5' vitrophyre, then 2.0' mixed FGM, vitro & bxa, then vitro & bxa to 253', then FGM to etc	250		242.7 contact 55° to CA sharp		245.0 250.0 255.0 258.5	250.0 255.0 258.5 262.0				
258.5-300TD		PLANAR LAMINAR	260		258.5 etc 60° to CA. sharp							

HOLE NUMBER D-300-98 PAGE 5 OF 5

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
258.5 - 300TD		PLANAR LAMINAR gry, fg flow, well developed platy foliation, typical of other in this hole. No lithics or tuffs. foliation, regular to TD.	270 280 290 300 TD		cte-TD flow foliation 75° to CA cte-TD sparse fks 20°, 30°, 75° to CA	245-250 genly wk stkwk of py-s⁻-chlor - ± cly vnlts to 1/8", mstly sub// to CA. 280 chlor vnlt cored by py, w/ red, soft mineral - cly. only occurrence in hole. 290-TD py-s⁻-chlor-cly stkwk vnlts return. sub// to 20° to CA.

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2
258.5	262.0				
262.0	265.0				
265.0	270.0				
270.0	275.0				
275.0	280.0				
280.0	285.0				
285.0	289.0				
289.0	294.0				
294.0	297.0				
297.0	300.0				

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-300-98 DATE: 10-19-98 LOGGED BY: M WHITLEY PAGE 1 OF 4

DRILL RUN		SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH		FRACTURE DATA				DENSITY DATA			
FROM	TO				DOWNHOLE DEPTH	POINT LOAD INDEX (psi)	FRACTURE DENSITY/FT.	AVG. ANGLE TO C.A	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cc)	DENSITY (g/cc)
0	5	84	88	36										
5	9	96	96	68										
9	13	48	63	20										
13	18	96	100	20										
18	28	95	100	38										
28	38	95	100	47										
38	45	70	94	19										
45	48	53	93	0										
48	50	0	95	0										
50	59	87	100	22										
59	69	96	98	18										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-300-98 DATE: 10-19-98 LOGGED BY: W Whitney PAGE 2 OF 4

DRILL RUN		SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH		FRACTURE DATA				DENSITY DATA			
FROM	TO				DOWNHOLE DEPTH	POINT LOAD INDEX (psi)	FRACTURE DENSITY/FT.	AVG. ANGLE TO C.A.	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cc)	DENSITY (g/cc)
69	79	91	94	31										
79	89	95	95	63										
89	99	100	100	51										
99	109	98	100	24										
109	119	95	95	60										
119	129	100	100	68										
129	139	97	97	83										
139	149	100	100	90										
149	159	94	100	44										
159	169	98	100	43										
169	179	100	100	67										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D-300-98 DATE: 10-20-98 LOGGED BY: WHITNEY PAGE 3 OF 4

DRILL RUN		SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH		FRACTURE DATA				DENSITY DATA			
FROM	TO				DOWNHOLE DEPTH	POINT LOAD INDEX (psi)	FRACTURE DENSITY/FT.	AVG. ANGLE TO C.A.	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cc)	DENSITY (g/cc)
179	189	97	97	61										
189	199	97	95	42										
199	209	99	99	56										
209	219	98	98	50										
219	229	97	100	53										
229	235	92	92	44										
235	245	93	100	83										
245	255	93	100	71										
255	265	94	100	50										
265	275	91	100	39										
275	285	96	96	75										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # D 300-98 DATE: 10-21-98 LOGGED BY: WHITNEY PAGE 4 OF 4

DRILL RUN		SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH		FRACTURE DATA				DENSITY DATA			
FROM	TO				DOWNHOLE DEPTH	POINT LOAD INDEX (psi)	FRACTURE DENSITY /FT.	AVG. ANGLE TO C.A.	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cc)	DENSITY (g/cc)
285	294	94	94	46										
294	300	100	100	48										

American Assay Laboratories

INVOICE

Remit To: P.O. Box11530
Reno, Nevada 89510
Phone NO.: 702-356-0606
Fax No.: 702-356-1413

AMERICAN ASSAY LABORATORIES
1500 GLENDALE AVE.
SPARKS, NV 89431-5902

(702) 356-0606

INVOICE NO: SP 0051348-IN
INVOICE DATE: 11/18/98

INVOICE TO:
THE ROSEBUD MINING CO., LLC
HECLA MINING COMPANY, OPERATOR
P.O. BOX 2610
WINNEMUCCA NV 89446

THE ROSEBUD MINING CO., LLC
HECLA MINING COMPANY, OPERATOR
P.O. BOX 2610
WINNEMUCCA NV 89446

CUSTOMER P.O.	PROJECT	TERMS
D-300-98	DEVELOPMENT	NET 30 - DUE IN U.S. DOLLARS

QUANTITY	DESCRIPTION	PRICE	AMOUNT
87	SAMPLES RECEIVED	.00	.00
86	DRYING	1.00	86.00
86	JAW CRUSHING CHARGE	1.30	111.80
86	COARSE MILLING CHARGE	4.50	387.00
86	SPLITTING CHARGE	2.40	206.40
86	RING MILLING CHARGE	2.00	172.00
87	Au (1 A.T. FIRE ASSAY)	8.00	696.00
15	Au ANALYSES/GRAVIMETRIC	8.75	131.25
87	HYDROCHLORIC/NITRIC DIGESTION	2.00	174.00
87	Ag ANALYSES	1.00	87.00

86-5110-477
CAA

NET INVOICE:	2,051.45
LESS DISCOUNT:	410.29
FREIGHT:	.00
INVOICE TOTAL:	$1,641.16

xAMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051348

American Assay Laboratories

PO BOX 11530
RENO NV,USA
Ph.(702) 356-0606, Fax.(702) 356-1413

HECLA MINING COMPANY

COPIES TO : KURT ALLEN

:

:

:

CLIENT REFERENCE No: D-300-98 RECEIVED : 30 OCT 1998

No. SAMPLES : 87 REPORTED : 18 NOV 1998

MAIN SAMPLE TYPE : DRILL CORE

NEVADA LEGISLATIVE DISCLAIMER :-
The results of this assay were based solely upon the content of the sample submitted. Any decision to invest should be made only after the potential investment value of the claim or deposit has been determined based on the results of assays of multiple samples of geological materials collected by the prospective investor or by a qualified person selected by him and based on an evaluation of all engineering data which is available concerning any proposed project.

ANALYSIS	ANALYTICAL METHOD	QUALITY PARAMETER	UNIT	DETECTION
Au(OZ)	FA30	15%	OPT	0.001
Au(RZ)	FA30	15%	OPT	0.001
AuGRAV	GRAV	15%	OPT	0.001
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Susan King M.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051348

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-300-98

REPORTED : 18 NOV 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-300-98 0-5	0.006			0.04
D-300-98 5-8	0.002			0.05
D-300-98 8-9	0.007			0.10
D-300-98 9-13	0.013			0.58
D-300-98 13-15	0.035			0.26
D-300-98 15.0-17.5	0.014			0.13
D-300-98 17.5-19.5	0.021			0.06
D-300-98 19.5-23.0	0.009			0.05
D-300-98 23.0-27.5	0.014			0.03
D-300-98 27.5-29.0	0.224		0.387	0.17
D-300-98 29.0-32.2	0.050		0.099	0.04
D-300-98 32.2-36.5	0.011			0.04
D-300-98 36.5-38.5	0.115		0.084	0.31
D-300-98 38.5-41.5	0.002			0.03
D-300-98 41.5-45.0	<0.001			<0.02
D-300-98 45-50	<0.001			<0.02
D-300-98 50-52	<0.001			<0.02
D-300-98 52.0-54.7	<0.001			0.02
D-300-98 54.7-55.8	0.160		0.139	0.13
D-300-98 55.8-58.6	0.002			0.04
D-300-98 58.6-61.0	0.019	0.015		0.06
D-300-98 61.0-63.2	0.029			0.15
D-300-98 63.2-66.5	0.017			0.05
D-300-98 66.5-69.0	0.032	0.025		0.09
D-300-98 69-71	0.041			0.18

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ANALYSIS REPORT SP051348

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-300-98

REPORTED : 18 NOV 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-300-98 71.0-73.5	0.021			0.08
D-300-98 73.5-76.0	0.084		0.050	0.18
D-300-98 76-79	<0.001			0.03
D-300-98 79-83	0.002			0.04
D-300-98 83.0-86.2	0.002			0.03
D-300-98 86.2-89.0	0.004			0.06
D-300-98 89-91	0.009			0.03
D-300-98 91-94	0.002			0.04
D-300-98 94-99	0.045			0.05
D-300-98 99-104	<0.001			0.02
D-300-98 104-109	<0.001	<0.001		0.04
D-300-98 109-114	0.002			0.08
D-300-98 114-119	0.012			0.32
D-300-98 119.0-122.5	0.002			0.07
D-300-98 122.5-126.0	<0.001			0.10
D-300-98 126-129	<0.001			0.07
D-300-98 129-134	0.005			0.03
D-300-98 134-139	0.022			0.02
D-300-98 139-144	<0.001			0.02
D-300-98 144-149	<0.001			0.03
D-300-98 149.0-153.5	0.002			0.02
D-300-98 153.5-155.5	1.209		1.010	1.28
D-300-98 155.5-159.0	0.022			0.09
D-300-98 159-163	0.005			0.03
D-300-98 163-167	1.069		1.017	0.50

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051348

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-300-98

REPORTED : 18 NOV 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-300-98 167-169	0.018			0.05
D-300-98 169-173	0.003			0.05
D-300-98 173-176	0.230		0.315	1.15
D-300-98 176-179	0.085		0.078	0.20
D-300-98 179-181	0.024			0.12
D-300-98 181-184	0.204		0.229	0.20
D-300-98 184.0-186.5	0.157		0.179	0.26
D-300-98 186.5-190.0	0.073		0.154	0.77
D-300-98 190-193	0.069		0.094	0.19
D-300-98 193-196	0.021			0.12
D-300-98 196-199	0.026			0.15
D-300-98 199-204	0.006			0.07
D-300-98 204-209	0.002			0.07
D-300-98 209-214	0.002	0.004		0.04
D-300-98 214-219	0.004			0.03
D-300-98 219.0-220.5	<0.001			0.04
D-300-98 220.5-223.5	<0.001			0.04
D-300-98 223.5-226.0	0.003			0.10
D-300-98 226-229	0.004			0.09
D-300-98 229.0-233.8	0.061		0.099	0.16
D-300-98 233.8-238.5	0.002			0.10
D-300-98 238.5-242.7	0.166		0.309	0.26
D-300-98 242.7-245.0	<0.001			0.05
D-300-98 245-250	0.003			0.11
D-300-98 250-255	0.010			0.04

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051348

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-300-98

REPORTED : 18 NOV 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-300-98 255.0-258.5	<0.001			<0.02
D-300-98 258.5-262.0	<0.001			<0.02
D-300-98 262-265	<0.001			<0.02
D-300-98 265-270	<0.001			<0.02
D-300-98 270-275	<0.001			<0.02
D-300-98 275-280	0.003			0.07
D-300-98 280-285	<0.001			0.02
D-300-98 285-289	0.005			0.04
D-300-98 289-294	0.029			0.08
D-300-98 294-299	0.017			0.23
D-300-98 299-300	<0.001			<0.02
43593	0.534			2.83

xAMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051348

American Assay Laboratories

PO BOX 11530
RENO NV,USA
Ph.(702) 356-0606, Fax.(702) 356-1413

HECLA MINING COMPANY

COPIES TO : KURT ALLEN
:
:
:

CLIENT REFERENCE No: D-300-98 RECEIVED : 30 OCT 1998

No. SAMPLES : 87 REPORTED : 18 NOV 1998

MAIN SAMPLE TYPE : DRILL CORE

NEVADA LEGISLATIVE DISCLAIMER :-
The results of this assay were based solely upon the content of the sample submitted. Any decision to invest should be made only after the potential investment value of the claim or deposit has been determined based on the results of assays of multiple samples of geological materials collected by the prospective investor or by a qualified person selected by him and based on an evaluation of all engineering data which is available concerning any proposed project.

ANALYSIS	ANALYTICAL METHOD	QUALITY PARAMETER	UNIT	DETECTION
Au(OZ)	FA30	15%	OPT	0.001
Au(RZ)	FA30	15%	OPT	0.001
AuGRAV	GRAV	15%	OPT	0.001
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Susan King M.S.

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051348

American Assay Laboratories

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PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-300-98

REPORTED : 18 NOV 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-300-98 0-5	0.006			0.04
D-300-98 5-8	0.002			0.05
D-300-98 8-9	0.007			0.10
D-300-98 9-13	0.013			0.58
D-300-98 13-15	0.035			0.26
D-300-98 15.0-17.5	0.014			0.13
D-300-98 17.5-19.5	0.021			0.06
D-300-98 19.5-23.0	0.009			0.05
D-300-98 23.0-27.5	0.014			0.03
D-300-98 27.5-29.0	0.224		0.387	0.17
D-300-98 29.0-32.2	0.050		0.099	0.04
D-300-98 32.2-36.5	0.011			0.04
D-300-98 36.5-38.5	0.115		0.084	0.31
D-300-98 38.5-41.5	0.002			0.03
D-300-98 41.5-45.0	<0.001			<0.02
D-300-98 45-50	<0.001			<0.02
D-300-98 50-52	<0.001			<0.02
D-300-98 52.0-54.7	<0.001			0.02
D-300-98 54.7-55.8	0.160		0.139	0.13
D-300-98 55.8-58.6	0.002			0.04
D-300-98 58.6-61.0	0.019	0.015		0.06
D-300-98 61.0-63.2	0.029			0.15
D-300-98 63.2-66.5	0.017			0.05
D-300-98 66.5-69.0	0.032	0.025		0.09
D-300-98 69-71	0.041			0.18

AMERICAN ASSAY LABORATORIES

ANALYSIS REPORT SP051348

American Assay Laboratories

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
REFERENCE : D-300-98

REPORTED : 18 NOV 1998

SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-300-98 71.0-73.5	0.021			0.08
D-300-98 73.5-76.0	0.084		0.050	0.18
D-300-98 76-79	<0.001			0.03
D-300-98 79-83	0.002			0.04
D-300-98 83.0-86.2	0.002			0.03
D-300-98 86.2-89.0	0.004			0.06
D-300-98 89-91	0.009			0.03
D-300-98 91-94	0.002			0.04
D-300-98 94-99	0.045			0.05
D-300-98 99-104	<0.001			0.02
D-300-98 104-109	<0.001	<0.001		0.04
D-300-98 109-114	0.002			0.08
D-300-98 114-119	0.012			0.32
D-300-98 119.0-122.5	0.002			0.07
D-300-98 122.5-126.0	<0.001			0.10
D-300-98 126-129	<0.001			0.07
D-300-98 129-134	0.005			0.03
D-300-98 134-139	0.022			0.02
D-300-98 139-144	<0.001			0.02
D-300-98 144-149	<0.001			0.03
D-300-98 149.0-153.5	0.002			0.02
D-300-98 153.5-155.5	1.209		1.010	1.28
D-300-98 155.5-159.0	0.022			0.09
D-300-98 159-163	0.005			0.03
D-300-98 163-167	1.069		1.017	0.50

AMERICAN ASSAY LABORATORIES

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REFERENCE : D-300-98

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SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-300-98 167-169	0.018			0.05
D-300-98 169-173	0.003			0.05
D-300-98 173-176	0.230		0.315	1.15
D-300-98 176-179	0.085		0.078	0.20
D-300-98 179-181	0.024			0.12
D-300-98 181-184	0.204		0.229	0.20
D-300-98 184.0-186.5	0.157		0.179	0.26
D-300-98 186.5-190.0	0.073		0.154	0.77
D-300-98 190-193	0.069		0.094	0.19
D-300-98 193-196	0.021			0.12
D-300-98 196-199	0.026			0.15
D-300-98 199-204	0.006			0.07
D-300-98 204-209	0.002			0.07
D-300-98 209-214	0.002	0.004		0.04
D-300-98 214-219	0.004			0.03
D-300-98 219.0-220.5	<0.001			0.04
D-300-98 220.5-223.5	<0.001			0.04
D-300-98 223.5-226.0	0.003			0.10
D-300-98 226-229	0.004			0.09
D-300-98 229.0-233.8	0.061		0.099	0.16
D-300-98 233.8-238.5	0.002			0.10
D-300-98 238.5-242.7	0.166		0.309	0.26
D-300-98 242.7-245.0	<0.001			0.05
D-300-98 245-250	0.003			0.11
D-300-98 250-255	0.010			0.04

AMERICAN ASSAY LABORATORIES

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SAMPLES	Au(OZ) FA30 OPT	Au(RZ) FA30 OPT	AuGRAV GRAV OPT	Ag(OZ) D210 OPT
D-300-98 255.0-258.5	<0.001			<0.02
D-300-98 258.5-262.0	<0.001			<0.02
D-300-98 262-265	<0.001			<0.02
D-300-98 265-270	<0.001			<0.02
D-300-98 270-275	<0.001			<0.02
D-300-98 275-280	0.003			0.07
D-300-98 280-285	<0.001			0.02
D-300-98 285-289	0.005			0.04
D-300-98 289-294	0.029			0.08
D-300-98 294-299	0.017			0.23
D-300-98 299-300	<0.001			<0.02
43593	0.534			2.83

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MAIN SAMPLE TYPE : DRILL CORE

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The results of this assay were based solely upon the content of the sample submitted. Any decision to invest should be made only after the potential investment value of the claim or deposit has been determined based on the results of assays of multiple samples of geological materials collected by the prospective investor or by a qualified person selected by him and based on an evaluation of all engineering data which is available concerning any proposed project.

ANALYSIS	ANALYTICAL METHOD	QUALITY PARAMETER	UNIT	DETECTION
Au(OZ)	FA30	15%	OPT	0.001
Au(RZ)	FA30	15%	OPT	0.001
AuGRAV	GRAV	15%	OPT	0.001
Ag(OZ)	D210	10%	OPT	0.02

SIGNATORY : Susan King M.S.

11/18/1998 10:23 7023561414 AMERICAN ASSAY LABS PAGE 01
7023561414

AMERICAN ASSAY LABORATORIES

PROVISIONAL REPORT SP051348

CLIENT : HECLA MINING COMPANY
PROJECT : ROSEBUD DEVELOPMENT
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SAMPLES	Au(OZ)	Au(RZ)	AuGRAV	Ag(OZ)
D-300-98 0-5	0.006			0.04
D-300-98 5-8	0.002			0.05
D-300-98 8-9	0.007			0.10
D-300-98 9-13	0.013			0.58
D-300-98 13-15	0.035			0.26
D-300-98 15.0-17.5	0.014			0.13
D-300-98 17.5-19.5	0.021			0.06
D-300-98 19.5-23.0	0.009			0.05
D-300-98 23.0-27.5	0.014			0.03
D-300-98 27.5-29.0	0.224		0.387	0.17
D-300-98 29.0-32.2	0.050		0.099	0.04
D-300-98 32.2-36.5	0.011			0.04
D-300-98 36.5-38.5	0.115		0.084	0.31
D-300-98 38.5-41.5	0.002			0.03
D-300-98 41.5-45.0	<0.001			<0.02
D-300-98 45-50	<0.001			<0.02
D-300-98 50-52	<0.001			<0.02
D-300-98 52.0-54.7	<0.001			0.02
D-300-98 54.7-55.8	0.160		0.139	0.13
D-300-98 55.8-58.6	0.002			0.04
D-300-98 58.6-61.0	0.019	0.015		0.06
D-300-98 61.0-63.2	0.029			0.15
D-300-98 63.2-66.5	0.017			0.05
D-300-98 66.5-69.0	0.032	0.025		0.09
D-300-98 69-71	0.041			0.18

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D-300-98 83.0-86.2	0.002			0.03	
D-300-98 86.2-89.0	0.004			0.06	
D-300-98 89-91	0.009			0.03	
D-300-98 91-94	0.002			0.04	
D-300-98 94-99	0.045			0.05	
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D-300-98 114-119	0.012			0.32	
D-300-98 119.0-122.5	0.002			0.07	
D-300-98 122.5-126.0	<0.001			0.10	
D-300-98 126-129	<0.001			0.07	
D-300-98 129-134	0.005			0.03	
D-300-98 134-139	0.022			0.02	
D-300-98 139-144	<0.001			0.02	153.5-167'
D-300-98 144-149	<0.001			0.03	= 13.5' @
D-300-98 149.0-153.5	0.002			0.02	
D-300-98 153.5-155.5 2	1.209		1.010	1.28	
D-300-98 155.5-159.0 3.5	0.022			0.09	0.503 Ag
D-300-98 159-163 4	0.005			0.03	0.37 Ag
D-300-98 163-167 4'	1.069		1.017	0.50	

AMERICAN ASSAY LABORATORIES

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D-300-98 176-179	0.085		0.078	0.20	
D-300-98 179-181	0.024			0.12	81-86.5 = 5.5
D-300-98 181-184 3	0.204		0.229	0.20	0.183 Ag
D-300-98 184.0-186.5 2.5	0.157		0.179	0.26	0.23 Ag
D-300-98 186.5-190.0	0.073		0.154	0.77	
D-300-98 190-193	0.069		0.094	0.19	
D-300-98 193-196	0.021			0.12	
D-300-98 196-199	0.026			0.15	
D-300-98 199-204	0.006			0.07	
D-300-98 204-209	0.002			0.07	
D-300-98 209-214	0.002	0.004		0.04	
D-300-98 214-219	0.004			0.03	
D-300-98 219.0-220.5	<0.001			0.04	
D-300-98 220.5-223.5	<0.001			0.04	
D-300-98 223.5-226.0	0.003			0.10	
D-300-98 226-229	0.004			0.09	
D-300-98 229.0-233.8	0.061		0.099	0.16	
D-300-98 233.8-238.5	0.002			0.10	
D-300-98 238.5-242.7	0.166		0.309	0.26	
D-300-98 242.7-245.0	<0.001			0.05	
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D-300-98 250-255	0.010			0.04	

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D-300-98 258.5-262.0	<0.001			<0.02
D-300-98 262-265	<0.001			<0.02
D-300-98 265-270	<0.001			<0.02
D-300-98 270-275	<0.001			<0.02
D-300-98 275-280	0.003			0.07
D-300-98 280-285	<0.001			0.02
D-300-98 285-289	0.005			0.04
D-300-98 289-294	0.029			0.08
D-300-98 294-299	0.017			0.23
D-300-98 299-300	<0.001			<0.02
43593	0.534			2.83

SP

SUBMITTAL FORM

American Assay Laboratories

Geochemical • Environmental • Metallurgical

Sparks Office
1500 Glendale Ave.
Nevada 89431
Box 11530
Reno, NV 89510
Telephone
(702) 356-0606
Fax
(702) 356-1413

Tucson Office
2775 E. Ganley
Tucson, AZ 85706
Telephone
(520) 294-8078
Fax
(520) 294-6352

Elko Office
2320 Last Chance Rd.
Nevada 89801
Box 2908
Elko, NV 89801
Telephone
(702) 738-9100
Fax
(702) 738-2594

Mazatlan Office
Telephone/Fax
011-52-69-170035

Other Offices
Lima, Peru
Santiago, Chile
Mendoza, Argentina

Company: ROSEBUD MINING LLC

Address: P.O. Box 2610

City WINNEMUCCA State NV Zip 89445

Telephone Number: (702) 623-6912 Fax Number: (702) 623-6967

Project Name: Development Purchase Order Number:

Date Submitted: 10/26/98 Number of Samples: 86

RESULTS REPORTED IN: ppm [ ] ppb [ ] opt [ ] Au Ag according to Rosebud Hillie protocol

D-3XD-98 SAMPLE IDENTIFICATION				TYPE	ELEMENTS REQUIRED	
0-5	45-50	86.2-89	149-153.5		196-199	255-258.5
5-8	50-52	89-91	153.5-155.5		199-204	258.5-262
8-9	52-54.7	91-94	155.5-159		204-209	262-265
9-13	54.7-55.8	94-99	159-163		209-214	265-270
13-15	55.8-58.6	99-104	163-167		214-219	270-275
15-17.5	58.6-61	104-109	167-169		219-220.5	275-280
17.5-19.5	61-63.2	109-114	169-173		220.5-223.5	280-285
19.5-23	63.2-66.5	114-119	173-176		223.5-226	285-289
23-27.5	66.5-69	119-122.5	176-179		226-229	289-294
27.5-29	69-71	122.5-126	179-181		229-233.8	294-299
29-32.2	71-73.5	126-129	181-184		233.8-238.5	299-300 TD
32.2-36.5	73.5-76	129-134	184-186.5		238.5-242.7	
36.5-38.5	76-79	134-139	186.5-190		242.7-245	
38.5-41.5	79-83	139-144	190-193		245-250	
41.5-45	83-86.2	144-149	193-196		250-255	

COARSE REJECTS (Normally Discarded After 60 Days)

[ ] Return COD after analysis complete

PULPS (Normally Stored Free For One Month)

[ ] Discard after one month
[ ] Return COD after one month

RESULTS AND INVOICES TO BE SENT TO:

Invoice to:

Kurt Allen

Results to:

Kurt Allen

Comments:

CLIENT FILE COPY

D-300-98	35	45	126.7
	150	45.5	128.2
	300	45	130.7

D-300-98 BOX 2
DEPTH 9 - 18_5

D-300-98 BOX 1
DEPTH 0 - 9

D-300-98 BOX 3
DEPTH 18_5 - 28

38
45
D-300-98 BOX 5
DEPTH 37.5 - 47

28
D-300-98 BOX 4
DEPTH 28 - 37.5

D-300-98 BOX 6
DEPTH 47 - 56
48
50

69
D-300-98 BOX 8
DEPTH 65 - 74

59
D-300-98 BOX 7
DEPTH 56 - 65

D-300-98 BOX 6
DEPTH 74 - 83.5

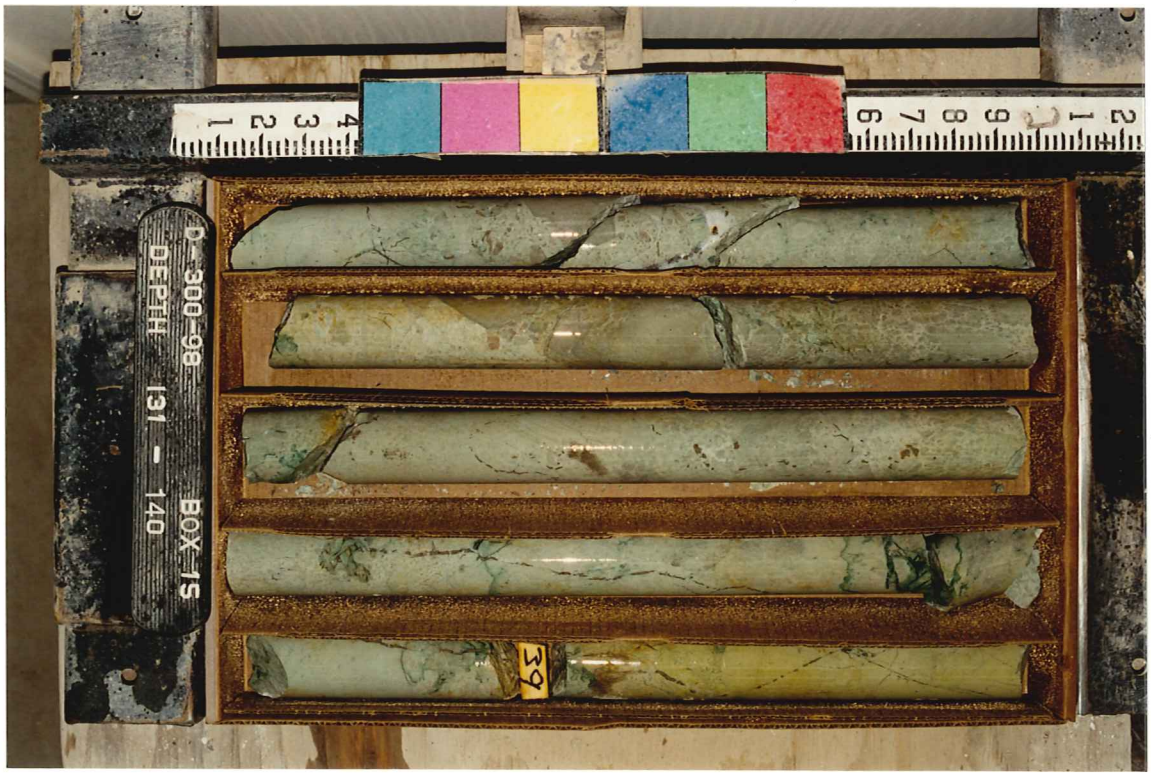
D-300-98
BOX 11
DEPTH 93 - 102_5
99

D-300-98
BOX 10
DEPTH 83_5 - 93
89

D-300-98
BOX 12
DEPTH 102_5 - 111_5
108

D-300-98
BOX 14
DEPTH 121 - 131
129

D-300-98
BOX 13
DEPTH 111.5 - 121
119


D-300-98
BOX 15
DEPTH 131 - 140
139

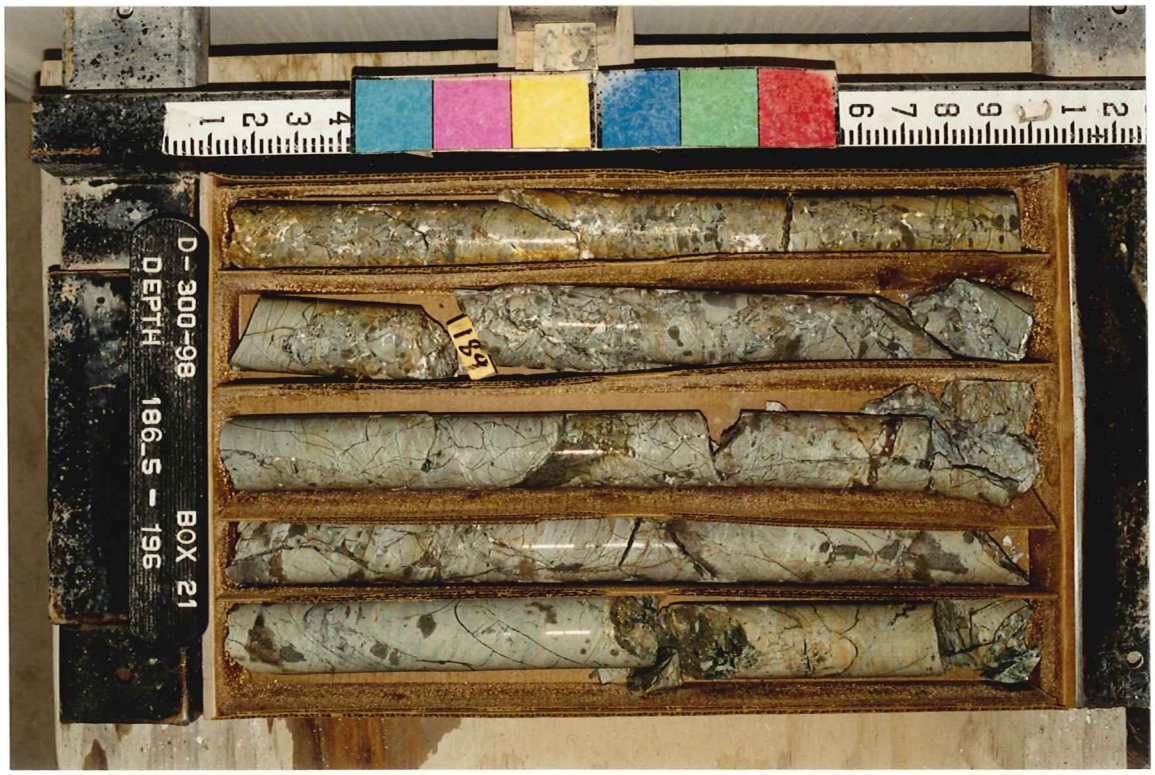
D-300-98
BOX 17
DEPTH 149.5 - 158.5

149
D-300-98
BOX 16
DEPTH 140 - 149.5

159
D-300-98
BOX 18
DEPTH 158.5 - 168

179
D-300-98 BOX 20
DEPTH 177 - 186_5

169
D-300-98 BOX 19
DEPTH 168 - 177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DEPTH 186_5 - 196
189

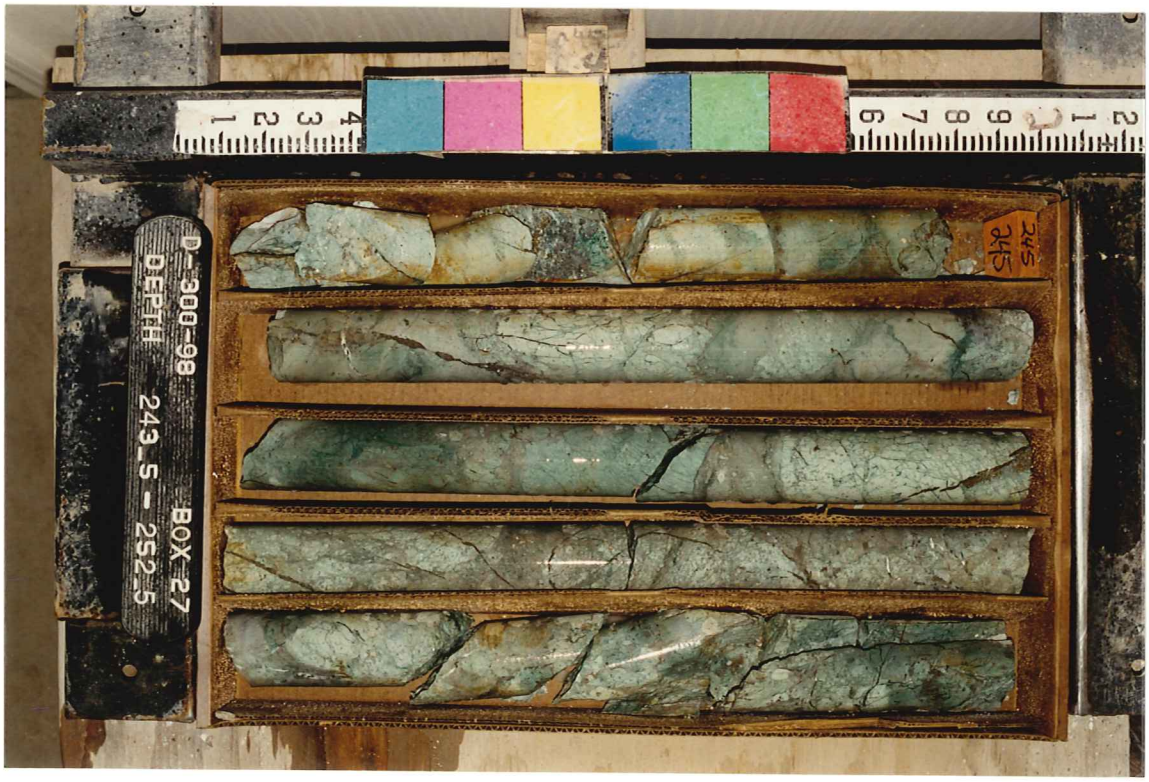
D-300-98
BOX 23
DEPTH 205 - 215

D-300-98
BOX 22
DEPTH 196 - 205

D-300-98
BOX 24
DEPTH 215 - 224

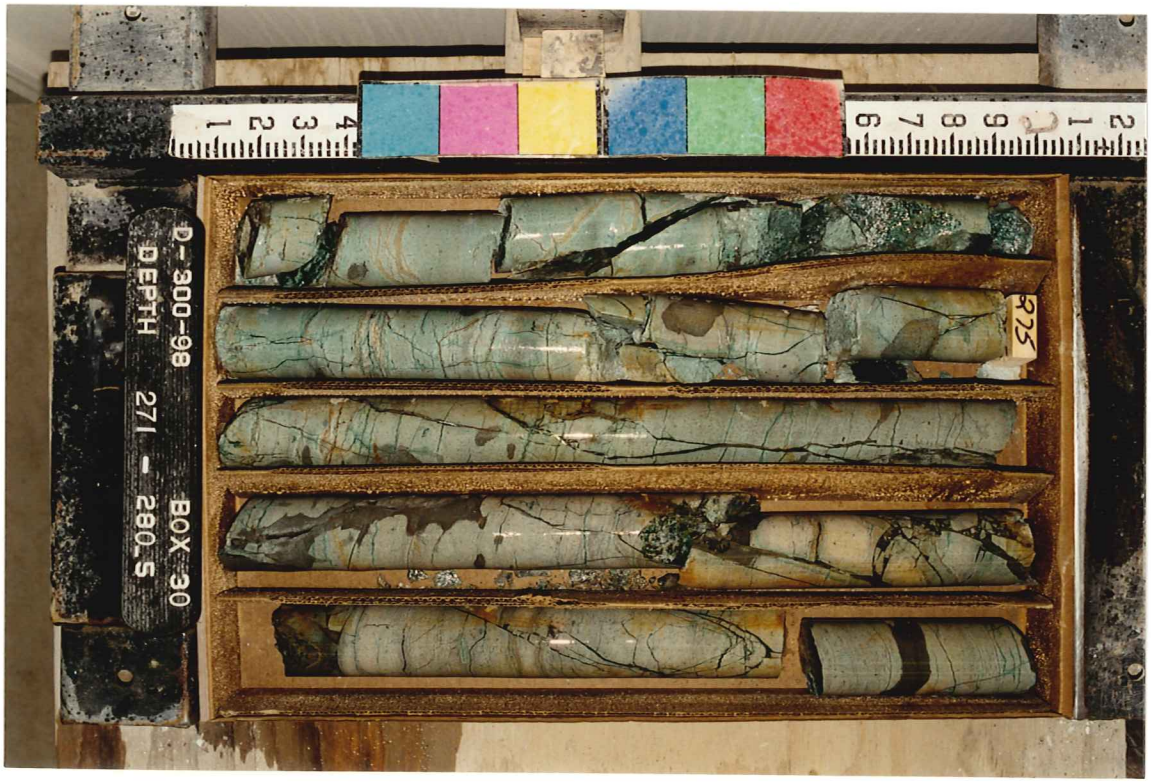
D-300-98 BOX 26
DEPTH 234 - 243.5

D-300-98 BOX 25
DEPTH 224 - 234


D-300-98 BOX 27
DEPTH 243.5 - 252.5

265
D-300-98 BOX 29
DEPTH 262 - 271

255
D-300-98 BOX 28
DEPTH 252.5 - 262


275
D-300-98 BOX 30
DEPTH 271 - 280.5

D-300-98
BOX 32
DEPTH 290 - 300 TD
294
300

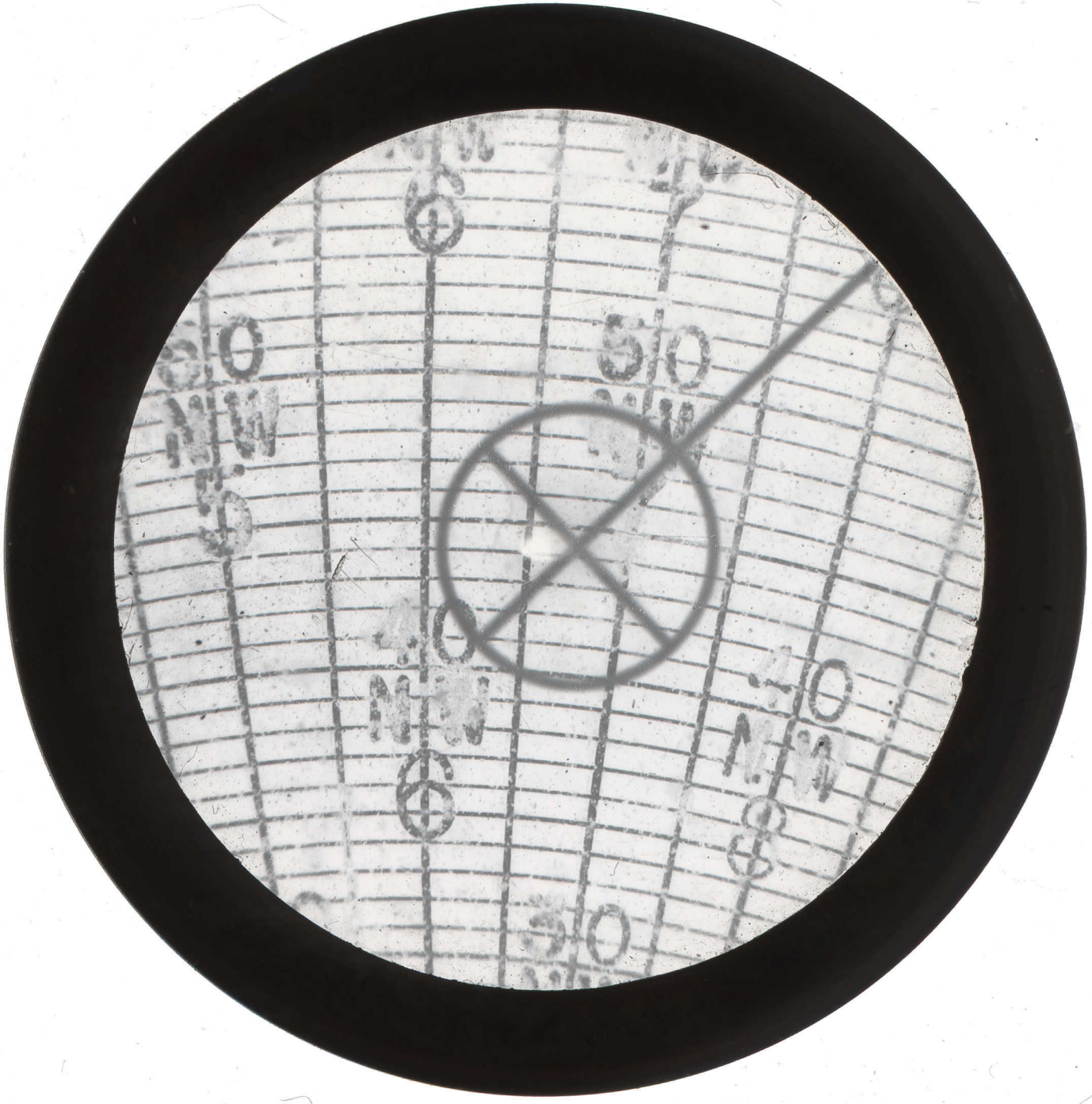
D-300-98
BOX 31
DEPTH 280.5 - 290
285

SINGLE SHOT
PHOTO DISC RECORD

COMPANY Hecla
WELL NAME D-300-98
LEASE
TAKEN BY Magoon/Jerome
DEPTH 35'
DATE 8-30-98
DRIFT ANGLE
DIRECTION
TYPE
JOB NO.
HI-1408

SINGLE SHOT
PHOTO DISC RECORD

COMPANY Hecla
WELL NAME D-300-98
LEASE
TAKEN BY Magoon / Jerome
DEPTH 300'
DATE 8-30-98
DRIFT ANGLE
DIRECTION
TYPE
JOB NO.
HI-1408

SINGLE SHOT
PHOTO DISC RECORD

COMPANY Hecla
WELL NAME D-300-98
LEASE
TAKEN BY Magoon/Jerome
DEPTH 150'
DATE 8-30-98
DRIFT ANGLE
DIRECTION
TYPE
JOB NO.
HI-1408